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## Assessment of the Safety and Security of Imported Chicken Meats Retailed in Akure Metropolis, Nigeria

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### Abstract

The quality and safety of meat and its products for human consumption is of great importance in muscle food production. Thus, this study was carried out to assess the composition of imported chicken meats retailed in the study area, to determine the bacteriological load of the imported chicken meats, to determine the sources, hygiene and management practices of the retailers. Three markets namely (Oja-Oba, Isikan and NEPA) markets in Akure South — West were selected for the purpose of this study and the chicken meat samples were collected randomly for the three periods fortnightly. A total of forty- five samples were collected aseptically and transferred immediately to the laboratory for proximate composition analysis, bacteriological analysis and lipid peroxidation. There were significant ( $p < 0.05$ ) differences in the crude protein, crude fat and moisture content of the chicken meat samples collected at the market level. Chicken meat samples from Oja-Oba had the highest moisture of 75.89% while chicken meats samples from NEPA market had the lowest moisture of 73.72%, highest crude protein value of 27.34% was recorded for meat samples in NEPA market and the lowest crude protein of 23.40 was recorded for meat samples in Isikan market and the highest crude fat content of 10.54% for meat samples in Oja-Oba and lowest crude fat of 9.99% for meat samples in NEPA market. For lipid peroxidation, there were significant ( $p < 0.05$ ) differences in the chicken meat samples obtained across the three markets with chicken meat samples in Isikan market having the highest value of 0.22 mg MDA/kg and chicken meat samples in NEPA market having the lowest value of 0.08 mg MDA/kg. Chicken meat samples collected from Oja-Oba market had the highest total bacteria count of  $119 \times 10^{-4}$  cfu/ml while chicken meat samples from NEPA markets had the lowest bacteria count of  $82.07 \times 10^{-4}$  cfu/ml ( $p < 0.05$ ).

The unhygienic means of handling the imported chicken meats and its products further predispose these products to bacteria contamination and thus degrading the quality of the meats available in the markets.

**Keywords:** Chicken Meats and Retailed, Imported, safety, Security